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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,270	08/02/2000	Christopher M. Carpenter	Q00-1000-US1	8515

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EXAMINER

NGUYEN, MINH DIEU T

ART UNIT PAPER NUMBER

2137

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/631,270	Applicant(s) CARPENTER ET AL.	
	Examiner Minh Dieu Nguyen	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-110 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-60 and 71-110 is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 16, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 13, 15, 17, 19, 21 and 61-70 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. This action is in response to the Appeal Brief dated January 18, 2005.
2. Claims 1-110 are pending.

Response to Arguments

3. In view of the Appeal Brief filed on January 18, 2005, PROSECUTION IS HEREBY REOPENED. The office regrets any inconvenience due to the applicant. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Objections

3. Claims 26 and 61 are objected to because of the following informalities:
 - a. As to claim 26, "a detect list" should be "a defect list".

- b. As to claim 61, "a media detect list" at line 3 should be "a media defect list".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 61 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 61, "the media defect list" lacks antecedent basis. For purposes of prior art rejections in this office action, the media detect list at line 3 will be considered as a media defect list.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 5, 7, 10-12, 14, 16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Durst, Jr. et al. (5,113,518).

a) As to claim 1, Durst discloses a method and system for preventing unauthorized use of software comprising determining a source fingerprint from the source storage medium (col. 3, lines 35-57, i.e. signature of the computer system derived from disk drive parameter), wherein the source fingerprint is a physical attribute of the source storage medium (col. 9, lines 3-35); combining the source content (i.e. applications software program) to be secured with the source fingerprint (i.e. authorizing program storing signature of the computer system which comprising signature of the source storage medium) to generate the fingerprinted content (col. 11, lines 15-21) and instructing the source storage medium to store the fingerprinted content.

b) As to claim 2, Durst discloses the step of reading and verifying the fingerprinted content comprising instructing a local storage medium to read the fingerprinted content (Fig. 13B, i.e. subsequent installed or load the applications program wherein the floppy disk containing the applications program has recorded thereon the signature of the authorized computer system, col. 26, lines 25-30); separating the source content to be secured from the source fingerprint (col. 26, lines 45-46, i.e. this step anticipates the source fingerprint is separated); requesting a local fingerprint from the local medium (Fig. 13B, element 1318) and comparing the local fingerprint with the source fingerprint and in response to the comparison determining whether to use the source content (Fig. 13B, elements 1320, 1322 and 1324).

c) As to claims 5 and 7, Durst discloses the step of requesting a local fingerprint from the local storage medium further comprising requesting from the local storage medium a local PSUVI and non-PSUVI characteristic (claims 5 and 7

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respectively) (Figure 13B, element 1318; col. 4, lines 1-11 i.e. defining PSUVI and non-PSUVI characteristics); replying to the host processor with the local fingerprint PSUVI and non-PSUVI and performing a secured verification of the local fingerprint PSUVI and non-PSUVI (Fig. 13B, elements 1320, 1322 and 1324).

d) As to claims 10 and 11, Durst discloses an extremely secure fingerprinted content comprising a source content to be secured combined with a fingerprint generated from a PSUVI and non-PSUVI characteristic (claims 10 and 11 respectively) of the storage medium (col. 4, lines 1-11 defining PSUVI and non-PSUVI characteristics; col. 9, lines 2-35 discloses fingerprint of disk drive; Fig. 13B, elements 1314 and col. 26, lines 25-30 anticipate the combination of source content and source fingerprint).

e) As to claims 12, 14, 16, 18 and 20, Durst discloses the storage medium is a hard disk drive (col. 3, lines 1-3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narasimhalu (5,412,718) in view of Durst, Jr. et al. (5,113,518).

Narasimhalu discloses a method for utilizing medium nonuniformities to minimize unauthorized duplication of digital information comprising determining a source fingerprint from the source storage medium (col. 2, lines 18-20), wherein the source fingerprint is a physical attribute of the source storage medium (col. 2, lines 20-25).

However, Narasimhalu does not disclose the steps of combining the source content (i.e. applications software program) to be secured with the source fingerprint to generate the fingerprinted content and instructing the source storage medium to store the fingerprinted content.

Durst discloses a method and system for preventing unauthorized use of software comprising the steps of combining the source content (i.e. applications software program) to be secured with the source fingerprint (i.e. signature of the computer system derived from disk drive parameter) (i.e. authorizing program storing signature of the computer system) to generate the fingerprinted content (col. 11, lines 15-21) and instructing the source storage medium to store the fingerprinted content.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of combining source content and source fingerprint and storing them to source storage medium as Durst teaches, in the system of Narasimhalu so as to provide a secure method for copy protection.

10. Claims 3-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durst, Jr. et al. (5,113,518) in view of Schneier (Applied cryptography).

a) As to claims 3 and 6, Durst discloses the step of determining a source fingerprint comprising using an open protocol to request a secured communication from the source medium (col. 3, lines 6-11); identifying a physical, statistically unique, verifiable and relatively immutable (PSUVI) characteristics and non PSUVI characteristics (claims 3 and 6 respectively) (col. 4, lines 1-11 defining PSUVI and non-PSUVI characteristics; col. 9, lines 2-35 discloses fingerprint of disk drive) associated with the source storage medium; requesting from the source storage medium the PSUVI or non PSUVI (claims 3 and 6 respectively) fingerprint characteristic (i.e. stored signature, col. 26, lines 45-46) and the source storage medium responding to the host with PSUVI or non-PSUVI fingerprint.

Durst does not disclose the step of generating encryption and/or decryption keys; returning the encryption key to the host processor and using the encryption key to convert the source content to an encrypted protocol.

Schneier discloses step of generating encryption and/or decryption keys (pages 213-216); returning the encryption key to the host processor and using the encryption key to convert the source content to an encrypted protocol (pages 220-222)

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of generating encryption/decryption keys and using them to encrypt the source content as Schneier teaches, in the system of Durst so as to securely protect source content.

b) As to claim 4, Durst discloses the step of creating a hybrid content to be secured by combining the source content and the source fingerprint (col. 11, lines 15-

21). However he does not disclose encrypting the fingerprinted content with an encryption key.

Schneier discloses the step of encrypting the fingerprinted content with an encryption key (pages 220-222).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of encryption key to encrypt the fingerprinted content as Schneier teaches, in the system of Durst so as to securely protect the fingerprinted content.

11. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durst, Jr. et al. (5,113,518) in view of Narasimhalu (5,412,718).

Durst discloses a method and system for preventing unauthorized use of software comprising a host processor (Figure 1, element 100) and a storage medium (Fig. 1, element 116), the storage medium comprising a storage medium processor, a host processor interface, a servo system, a read/write system, one of more storage disks (Fig. 8) and attribute detector to read PSUVI and non-PSUVI characteristic (claims 8 and 9 respectively) from one of more storage disks (col. 4, lines 1-11 defining PSUVI and non-PSUVI characteristics; col. 9, lines 2-35 discloses fingerprint of disk drive).

Durst does not disclose the physical, statistically unique, verifiable and relatively immutable (PSUVI) characteristic and non PSUVI characteristic from the one or more storage disks to use by the host processor to encrypt a content to be secured.

Narasimhalu discloses a method for preventing unauthorized copying and use of information which is stored on a storage medium and for restricting the use of such information to designated devices comprising using the signature (i.e. fingerprint) that is unique to a given storage medium to generate a key to encrypt the information on the storage medium (Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of fingerprint to encrypt a source content, as Narasimhalu teaches, in the system of Durst so as to securely protect data.

Allowable Subject Matter

12. Claims 22-60 and 71-110 are allowed. The prior arts of Durst, Jr. et al. (5,113,518), Narasimhalu (5,412,718), Akiyama et al. (5,805,699) and Noble (6,782,458), by themselves or in combination, discloses the method of claims 22, 51, 61 and 71 where the source content, source fingerprint and the combination of the source content and fingerprint are generated and stored; the authorization to the source content is approved based on the comparison between the source fingerprint with the target/local fingerprint, however those cited prior arts do not disclose the rest of the claimed limitations in claims 22, 51, 61 and 71.

All dependent claims to the above independent claims are allowed based on the same reason.

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13. Claims 13, 15, 17, 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claims 61-70 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-3873. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
4/15/05



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER